

# Claims

- [c1] 1. A circuit for automatically adjusting an operation voltage of an active matrix organic light emitting diode ("AMOLED"), comprising:  
a display panel of an AMOLED having a terminal of an organic light emitting diode ("OLED"); and  
an auto-adjusting circuit connected to the terminal of the OLED, wherein a current passing through the terminal of the OLED is detected by the auto-adjusting circuit, and a voltage applied to the terminal of the OLED is adjusted by the auto-adjusting circuit according to the current detected.
- [c2] 2. The circuit of claim 1, wherein the auto-adjusting circuit comprising:  
a resistor for generating a sensing voltage, wherein the sensing voltage is generated according to the detected current of the terminal of the OLED;  
a subtracting circuit connected to the resistor for computing a voltage difference between the sensing voltage and the voltage applied to the terminal of the OLED;  
a comparing circuit for comparing the voltage difference with a reference voltage in order to provide a control

signal; and

a digital processor connected to the comparing circuit for automatically adjusting the voltage applied to the terminal of the OLED according to the control signal.

- [c3] 3. The circuit of claim 2, wherein the resistance of the resistor is less than about 10 ohm.
- [c4] 4. The circuit of claim 2, wherein the reference voltage is computed according to a standard value of the current passing through the terminal of the OLED.
- [c5] 5. A method for automatically adjusting an operation voltage of an active matrix organic light emitting diode ("AMOLED"), comprising:
  - sensing a current of the terminal of a OLED; and
  - adjusting a voltage applied to the terminal of the OLED according to the sensed current of the terminal of the OLED automatically.